THE CAT'S WHISKER

BULLETIN OF THE CANADIAN VINTAGE WIRELESS ASSOCIATION

VOL. 8 NO. 3 SEPT 1978

A.D. CHALLONER Editor

Major Charles Lepel Richardson
1891 - 1978

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The Cat's Whisker is published quaterly and distributed to members of the Canadian Vintage Wireless Association. The price of this publication is included in the annual dues of $5 payable to the Treasurer on 1 October.

EDITOR'S NOTE:

Major C.L. Richardson died 30 August and a decision was made to print his story in the Sept. bulletin. This meant a separate flyer announcing the Sept. Picnic had to go out to members within a day's drive of Toronto. It also meant locating C.L.R.'s relatives, talking to his friends and sifting through several volumes of personal notes and papers to 'reconstruct' the story. Although this September's bulletin will be delivered to you in October (P.O. willing !), I do hope you find worthwhile this otherwise timely article.

Progress is being made on the N.E. Mod.821 described here last issue - but, slowly. A gurgling sound was heard coming from either the electrolytic can or power xfmr. as we brought the the line voltage up slowly with a Variac; an ohmeter check on the H.V. secondary pointed to a shorted transformer. Herman Weber points out that of the two options - repair or replace- the former may well be more direct. More on the subject next issue.

Your Nomination Committee has come up with the following slate for the upcoming election: V.P., M. Batsch; Secretary, T. Catton; Treas., J. Knott; Members-At-Large, as above but with M. Cox replacing Bert de Kat. M. Chaplin has agreed to the Presidency. --Ed.

CVWA ANNUAL MEETING

ELECTION Slide Show! **AUCTION**

SATURDAY OCTOBER 22 1:00 pm

110 RUMSEY RD. EAST YORK

PROGRAM

12:00	Equipment for auction is out for preview and cataloguing
1:00	Meeting begins
1:30	Election of executive
2:00	AWA MUSEUM Slides with taped commentary
2:45	Break
3:00	Auction

DUES

October is the month to send the $5 annual dues to Treasurer, Jack Knott 69 Rossburn Dr., Etobicoke, Ont., Canada M9C 2P9 .

DO IT NOW

GOLDUST

One Way or Another

A Play in One Act

By ERALD A. SCHIVO

Radio News for October, 1922

CHARACTERS:

POLICE CAPTAIN MATHEW BRADY
JOHN SEARS
TWO DETECTIVES

The scene is the wireless station at police headquarters. Necessary radio apparatus for receiving and transmitting is located in the rear of the room on a table. A half-dozen red books, each about the size of a pocket dictionary, are on the receiving cabinet, which is to the left of the radio telephone. A door on the left side of the room leads to another room which is for the convenience of the police wireless operators. A door to the right leads to the corridor and elevators. Near the door is line telephone attached to wall, and above the door is a clock on wall indicating 9 o'clock, running throughout scene. Simultaneous with the lifting curtain, the door on left side of room opens and Police Captain Mathew Brady enters. He walks to the wireless apparatus and seats himself in a comfortable chair. He then puts on the head set and throws aerial switch to receiving position.

There enters through corridor door John Sears.

Mathew Brady is a successful police captain in the early forties, while John Sears is a criminal, suspected by the police of many crimes for which the evidence is lacking. He is about 30 years of age.

Captain (*surprised*)—I thought, Sears, that you were to "pull off" a highway robbery to-night?

Sears (*nonchalantly seating himself in a chair near the wireless apparatus*)—What makes you think so, Captain?

Captain—Didn't you send this?

(*He takes a sheet of paper from the table and places it in Sears' hand.*)

Sear (*reads*)—Captain, you think you can get us fellows by such a foolish thing as radio, but I'll prove that the wireless will never get us. Here's your chance. Watch for an auto robbery tonight at 9:15. (*He hands the sheet to the Captain.*) Do you think I would admit sending that note?

Captain (*replacing sheet on table*)—You never know what a crook may do.

Sears (*angrily*)—Don't call me a crook, Brady, I have never been convicted of any crime yet.

Captain (*grimly*)—Nevertheless, you were implicated in many, but we lack the evidence. Sometime, somewhere, I will get you, and I will have the evidence!

Sears (*smiling*)—Come, come, Captain, let's be friends tonight. I have come to watch you operate the radio set. It will please me to see how you fail to capture the auto bandits. (*He laughs.*)

Captain (*with determination*)—While I operate this radio set no highwayman will get out of this city in an automobile, not if the robbery is reported in time.

Sears (*laughing*)—And how will you prevent them, may I ask?

Captain (*thoughtfully*)—Well, I might indiscreetly tell you now, but I think not,

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Correction: June '78 bulletin review on Volks Radio; M. Chaplin's original schematic does show the regeneration function after all - it's drawn in the Reinartz configuration.

although all the radio magazines will soon be explaining the different methods; however, I don't mind giving you a case we had the very first day we used the apparatus A couple of burglars robbed a house on Frederick Street and made their getaway in an automobile. A pedestrian saw the burglar come through a window and then get into a waiting machine in which another man was seated. The couple headed for the ocean beach. The witness phoned me and gave me a description of the machine and also the license number. After getting the important information I immediately threw my aerial switch to the transmitting side. (*He thrusts aerial switch to sending position.*) It is very simple, I turn this handle and this rheostat— (*He adjusts radio telephone transmitter.*) The set is now ready for sending. All I did was to call certain police automobiles near the beach. I then gave them all the information necessary. The burglars were arrested on Lincoln Way. (*He throws switch into receiving position and turns off transmitting current.*)

Sears (*sarcastically*)—Suppose, Captain, that the bandits' machine also has a wireless receiver and intercepts your orders. It is not very likely that they will continue to head toward the beach. You have a lot to learn yet, Captain. Didn't think of that, did you?

(*The telephone bell rings. The Captain removes the head-set and goes to answer phone on right side of room.*)

Captain (*lifting receiver to ear and speaking into transmitter*)—Hello . . . (*pauses*) . . . Yes . . . (*pauses*) . . . I'll have him stopped; we must take no chances. Repeat that license number again. (*He takes pencil from pocket of uniform and writes on pad of paper.*) That's good Marsh, good-night.

(*The Captain puts receiver on hook and crosses room. He seats himself before the radio apparatus and puts on the head-set.*)

Sears—Well, you didn't make a reply to what I said last.

Captain—No, but I will show you how the radio set works. A mounted policeman just phoned me that a speeding automobile passed him, disregarding his hand signal to stop. The machine is going out Nineteenth Avenue. There have been quite a few robberies in that district lately, and the man driving the automobile is going fast enough to be suspected of something worse than speeding. I will instruct the police machine patrolling Nineteenth Avenue to stop the autoist, and arrest him for speeding if for nothing else. Something might come up in the meantime.

(*He throws in aerial switch to transmitting position and manipulates apparatus.*)

Sears (*smiling*)—Bet you don't get them, Captain.

Captain (*speaking into hand transmitter*)—Auto two, auto two, auto two, ready. Stop machine going out Twenty-ninth Avenue, Dodge number 612122A, and arrest for speeding if there is nothing more suspicious about the men. Good luck.

Sears (*somewhat ill at ease*)—You gave the wrong street, Captain.

Captain (*throwing switch to receiving position and turning off transmitting current*)—That's not the only thing I gave wrong. The name of the car and the number are also incorrect. We have a code for all automobiles, license numbers, and names of the different streets in the city, to say nothing of a few other things. You see, it will do no one any good to listen in on what we say. Bandits with a receiving set in their machine might get my instructions, but if the instructions were about them they would never know. Here are some of the code books; I have to give out a few tomorrow. (*He points to the little red books on the receiving cabinet.*)

Sears (*looking at the clock*)—Your clock is right?

Captain—No, the janitor forgot to set it correctly, it is about eight minutes slow!

Sears (*turning pale*)—Then the fellows who sent the note have already committed highway-robbery.

Captain (*looking at clock*)—Um, five minutes have passed, if they pulled it off the time they said in the note. The correct time is now 9:20 o'clock. Maybe they were a few minutes late. A report should come in any moment now.

(*The telephone bell rings. The Captain removes head-set and goes to answer phone.*)

Sears (*very pale*)—Maybe—

Captain (*ready to lift receiver*)—Yes, maybe your friends were a little late and this is the report.

(*The Captain takes the receiver from hook.*)

(*Sears quickly takes one of the little red code books and slips it into his inside coat pocket while the Captain's back is turned.*)

Sears (*grasping wireless hand transmitter with one hand and with the other throwing in aerial switch for sending*)—Boys, police have secret code. Make your getaway the best way you can and disregard all instructions that come from this station.

Captain (*into line telephone transmitter*)—Wait a few moments, please. (*He laughs.*) I could have shot you, Sears, before you finished the first three words, but, you forgot in your excitement that it takes electricity to transmit the voice. Next time don't forget the current. Take a look at this.

(continued, p18)

To

C. L. Richardson

Radio Engineer
of the
Canadian General Electric Co., Limited
Ward St. Works

The Engineering Staff of the above works earnestly desire to express their sincere regard and esteem for You.

During your Service with the Engineering Department - Your willingness to co-operate - Your readiness to help - Your sincerity in an undertaking - Combined with a Ready Smile and Cheerful Disposition - have made Many Friends for You.

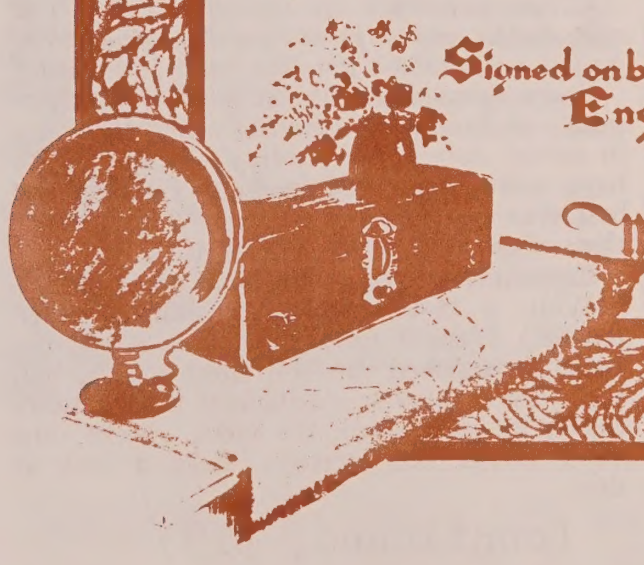
We join together in this expression of the Hope - that the Future will be one of

Success and Prosperity

Signed on behalf of the
Engineering Staff

C. E. Frost Aug 25 28

Managing Engineer



Frank Redmond. 28

MAJOR C.L. RICHARDSON
Canadian Radio Engineer

Charles Lepel Richardson played a significant role in the early growth of the commercial and military electronics industry in this country. He was a practical engineer, as opposed to a brilliant inventor, whose high technical standard, leadership and drive helped to advance our native industry. Above all, he was widely regarded as a fine gentleman; the tribute displayed opposite is but one expression of this regard. Sadly, few among us today knew of this man or were even aware of his passing on 30 August 1978 in Toronto at the age of 87.

Many of us will have in our collections one of the unique Canadian Radiola models produced in the mid-20's by Canadian General Electric, such as the Radiola 93,205 or 196, or, perhaps the Radiola III or IIIA which used UV-199 tubes insead of WD-11's. How many , though, knew that C.L. Richardson as C.G.E.'s first Radio Engineer was responsible for their development? How many of our Canadian members who are also members of the Institute of Electrical and Electronics Engineers of today knew that C.L. Richardson was the founding chairman of the Canadian Section of the original Institute of Radio Engineers which later grew into the IEEE?

As a tribute to a remarkable engineer and gentleman and in keeping with our organizational intent I would like to relate to you the story of Charles Lepel Richardson. It will be based on several volumes of newspaper clippings, personal notes and papers which he meticulously kept. These have been generously loaned to me by his relatives through Mr. Douglas Porter. I was also fortunate to have some conversations with C.L.R. in his later years and with Alex S. Mackie, a close friend of his. Because of the considerable influence of his notable father, Professor Charles Gordon Richardson, the story naturally begins here.

Professor C.G. Richardson, F.G.S.

Charles Gordon Richardson immigrated to Canada with his parents in 1876 and was to lead a very colourful and successful

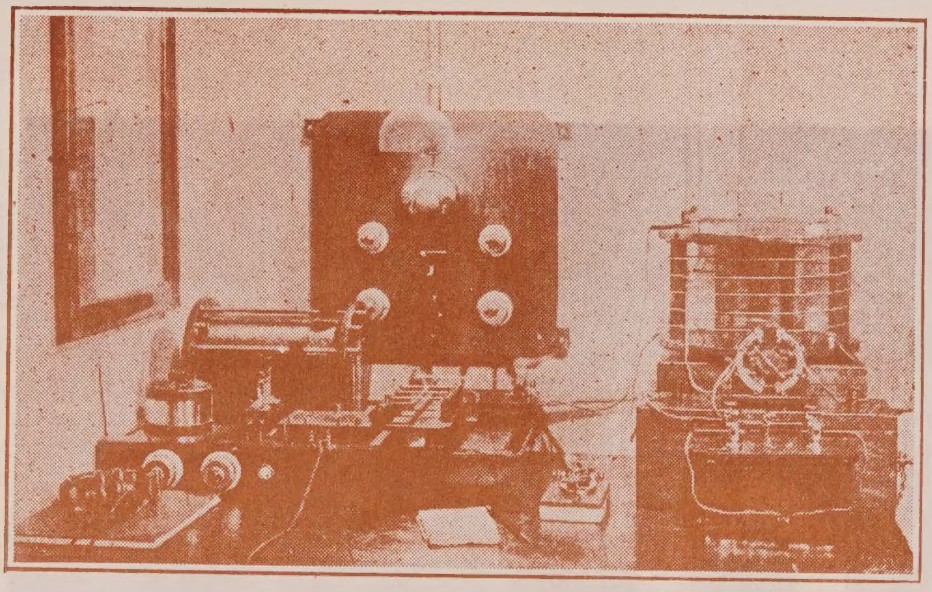
career as a Professor of Chemistry and later as an entrepreneur in the metal ore exploration and refining business in both Canada and the U.S.A.

On completion of a special course in Chemistry and Geology at the School of Practical Science, University of Toronto in 1880 he joined Dr. Andrew Smith's Ontario Veterinary College in Toronto as Professor of Chemistry. In addition to lecturing at the college, Professor Richardson gave many public lectures and demonstrations - a tradition which was to be carried on by his son. One series dealt with "water, heat, formation of snow and gases". Some were travellogues richly illustrated with novel stereoscopic slide projections, e.g., "A Trip to India".

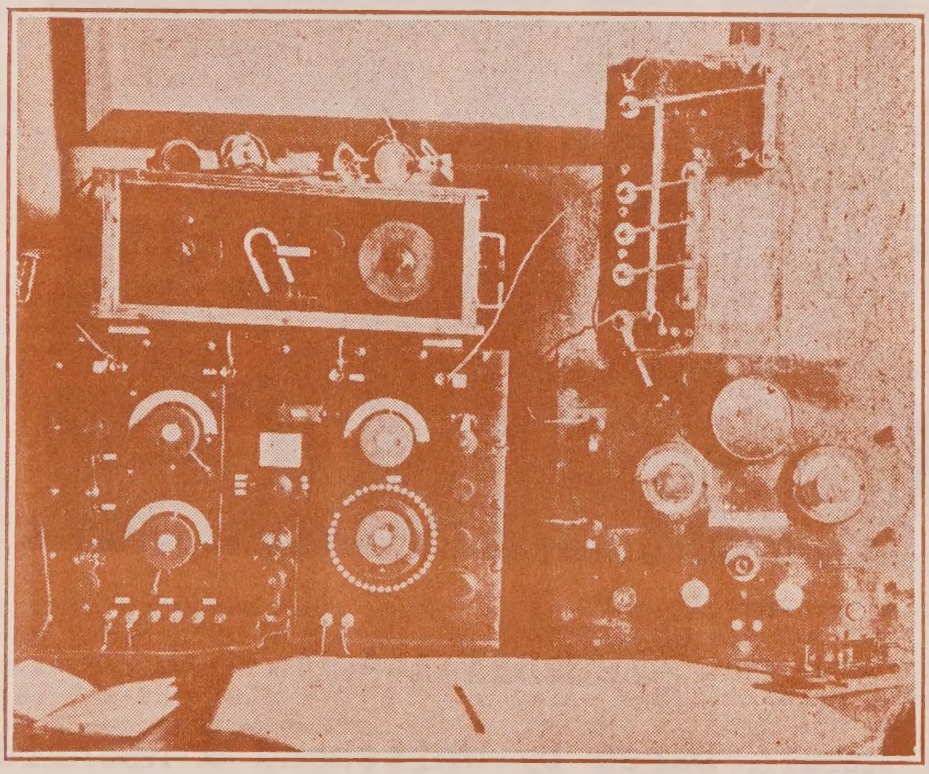
In 1886, at the age of 26 he married Helena Rattray, a young Scottish immigrant, and their first and only child, Charles Lepel was born in Toronto on 7 June 1891.

To supplement his academic income he had opened a small laboratory at 124 Euclid Ave. in Toronto in the early 1880's and advertised his services as an analytical and consuslting chemist. During summer months he made explorations in Algoma and Wahnapitae and discovered croppings of silver, nickel and cobalt. By 1891 his activities in the field were becoming more widely known and he was appointed Fellow of the Geological Society of London England. Shortly after this, several patents related to ore refining were granted him in Canada, U.S and the U.K. To fully reap the benefits of his ideas he decided to turn south, to the Orford Copper Co., Constable Hook, N.J. where he was appointed chief chemist and metallurgist, in 1895. At about the same time young Charley and his mother were packed off to Scotland to begin his early formal education. There he attended the Cross Hill Academy and Queens Park Academy in Glasgow.

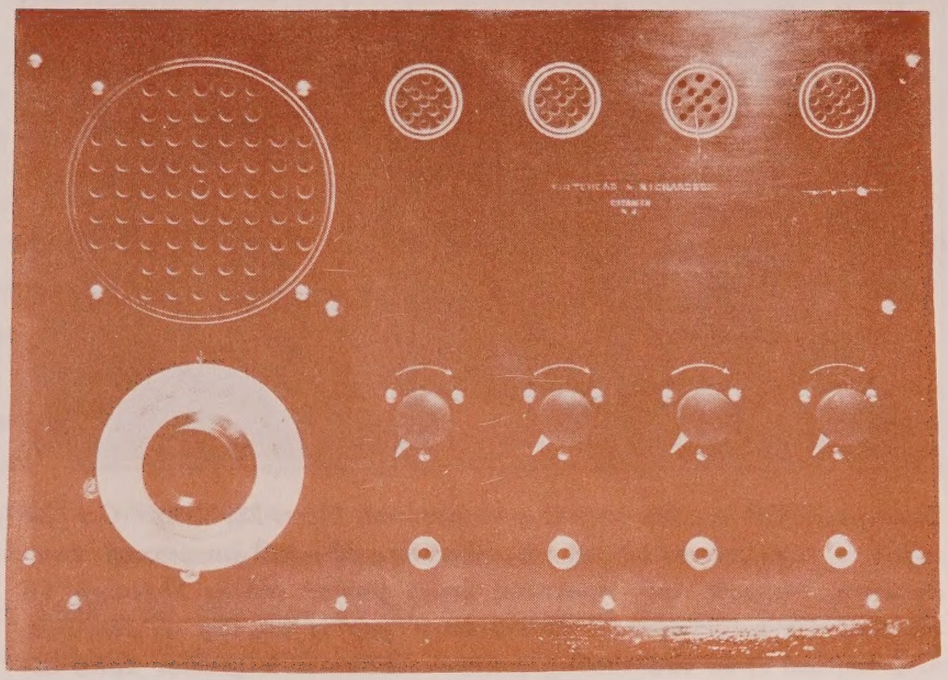
Charles Gordon, in 1898, seized an opportunity to establish the New York Mantle Co. selling gas mantles under contract to the city of New York. He then reorganized this company in 1900 to form the New York Chemical Refining Co. specializing in refining zinc ores at laboratories in Waverley N.J. About 1904 he moved the head office near Elizabeth, N.J., where Charley's public school education was continued. It was during this period that he also learned several practical lessons

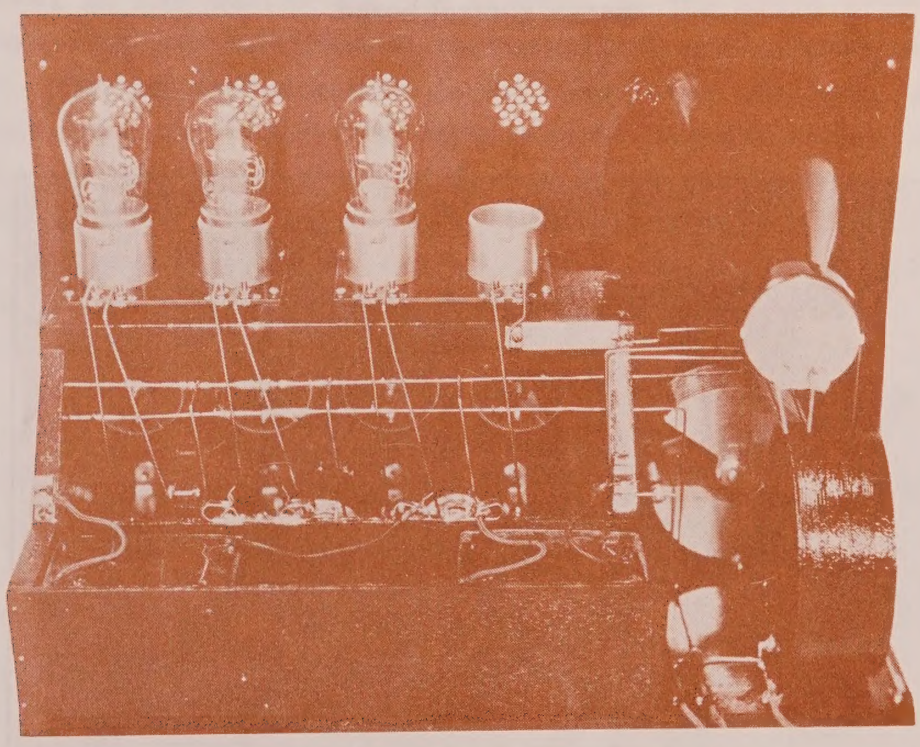


Station IXCR on the day it was opened, Nov. 25, 1913. On the right is the transmitting set, showing the oil-immersed condensers, 3-spark coil, operated from power mains through an electrolytic interruptor. The rotary gap is on top of the coil, and behind it is the tuning helix. Above is a giesler tube indicator. On the desk to the left is the receiving equipment, consisting of tuning coil, condenser, crystal detector, fixed condenser and change-over switch. On the wall at the rear is the power control board.



Interior views of Station IXCR at Welland, Ont. These show the improvements made in the installations. On the right is the transmitter, surmounted by the change-over switch, while at the left is the receiving cabinet operating on crystal. On top of the cabinet is a copy of a Marconi detector.





Audiola A-300

As manufactured by Whitehead & Richardson for John Wanamaker Co., Marshall Field Co., Lord & Taylor and Gimbel Brothers Co.

from his father.

It seems that Charley was permitted on occasion to drive his father's Stanley Steamer but was cautioned about always keeping the water tank filled. Sometimes when he was in a hurry and had not checked the water level, the Steamer would stall. When the water was replenished, though, it would restart. Now one afternoon his father was at work without the automobile; so, he decided to drive to Hackensack, N.J. Once again it stalled, but, this time he could not restart it by simply adding water. After several futile attempts he finally asked a nearby farmer if he would tow him with his horses. And so it happened that Charley arrived home for dinner, late and rather uncerimoniously in the Stanley Steamer which wasn't any longer a horseless carriage. Well, to be sure, his father took full advantage of the situation and lectured him on the proper way to maintain equipment, in particular, and on life in general! He reckoned that Charley must learn the importance of maintenance by first crawling under the Steamer and removing its boiler. When he had finally removed it after many hours of difficult labour his father instructed him to remove each and every piece of tubing and ream out the hardened deposits which had collected as the result of his continual negligence. Well, when that episode was finally over he had indeed learned a very practical lesson which he laterclaimed completely altered his attituted toward machinery.

Wireless Days

Somewhat of a stir was created in Elizabeth, N.J., the day young Charles erected his first aerial. The police investigated and reporters interviewed and the following headline appeared in the Tuesday evening edition of the Elizabeth Daily Jounal (5 Oct, 1909):

"ELIZABETH BOY RECEIVES WIRELESS NEWS AT HOME"

His home-built wireless system was reported to be able to receive messages from a distance of 300 miles and send out communications ten or fifteen. Most people of the day thought Marconi was the only man who could receive messages out of the air. His station comprised a coherer with potentiometer supply, a 100-ohm telephone receiver, fixed and variable condensers, two dry batteries, telegraph key, induction coil, spark gap and helix coil.

His education in such matters appears to have been derived from studies in electrical and mechanical engineering (the only formal record is an honours diploma in Science from Pingry College preparatory school dated June 1913), magazines on electricity and wireless telegraphy and fellow amateur experimenters in the American Wireless Association. His father no doubt also encouraged his interest in such matters.

It then happened that Prof. Richardson returned with his family to Toronto to organize the Dominion Metals Co. Ltd. at 137 Jarvis St. to establish a pilot plant for development of a process for the reduction of Nipissing ores containing cobalt nickel and copper mixed with large amounts of iron and arsenic. The process was soon proven successful and larger scale production was undertaken in the old Dominion Radiator Plant on Duffer-

in St. Young Charles helped out in the plant as Assistant Engineer and also undertook training as a Sapper in the University Section of the 2nd Field Coy., Canadian Engineers. The latter activity was to lead to an interesting episode of military wireless.

During the early part of 1910 on his own initiative, C.L. Richardson developed a wireless pack set, weighing about 92 lb with a sectional mast of 30 ft. length. The apparatus fitted a suitcase and contained a complete receiving and transmitting set capable of operating over a distance of some two or three miles, which was considerable in those days. He was shortly promoted to Sergeant and assigned a small detachment for wireless instruction and by the end of that year two more improved pack sets were constructed. They were featured during a sham fight at Lambton Mills in which a large Packard truck was used with two short masts erected at both ends with aerials strung between on spreaders. This was the first time that wireless was ever used by Canadian Militia in manoeuvres. Col. Maunsell from H.Q. at Ottawa made an inspection of the unit and was no doubt impressed when bombs were exploded from the moving truck at the Armouries in Toronto. Word soon spread and organizers of the Annual Motor Show in Toronto requested its presence at the March 1911 show. Newspaper accounts of the day showed tremendous interest in the Packard wireless truck. So successful was the exhibit htat it was repeated at the Montreal Motor Show later that month. And it is not surprising that on 28 Apr. 1911, C.L. Richardson received his first contract from the Dept. of Militia and Defence for the construction of two identical pack sets for use at Petawawa Camp, Ontario.

Charles continued to give lectures in wireless at the Armouries, the Military Institute and at the Dominion School of Telegraphy, Queen St. E., Toronto until the beginning of 1913 when his father moved the business to Welland Ontario. There under the name of Metals Chemical Co., business was booming. Starting with a processing capability of 15 tons of ore per day it was soon stepped up to 50 tons to supply cobalt and nickel to the U.K., U.S. and Japan during WWI. Young Charles was no doubt quite invclved as Chief Engineer for the operation and had to drop wireless for a time.

Sure enough, though, the old urge started and a new station, IXCR, was opened on November 25th 1913, notice of which appeared in the Welland and the Toronto papers. This rig already exhibited his characteristic care and craftmanship, as can be seen in the accompanying photographs.

It is also revealing to note that on the outbreak of war he telegraphed the Department of Militia and Defence offering the use of his station or to form a wireless detachment. His strongest desire was to serve his country overseas with a wireless detachment, but, it was decided that his services were in greater need maintaining metal production at the Welland plant. Thus he remained and worked diligently at the plant and in military training in the hopes of being assigned overseas. In 1915 he received a commission of Lieutenant of Engineers in the Signal Company.

In November 1916 his health broke down from lead and arsenic poisoning forcing a four-month period of recouperation in Bermuda. Then due to possible entry of the U.S. in the war he was

sent to help his father establish a similar plant, Niasco Chemical Co., at New Market, N.J. in 1917; this later became the Cobalt Chemical Co. in 1920. Finally in 1918, he received permission to join his unit abroad and was just abcut to leave when notice of the first armistice was received.

Owing to another break in health he was forced to giv e up chemical work entirely in 1921, and then fell back on wireless for employment. He was engaged as Chief Radio Instructor at the American Airways Training Schools,INC, College Point N.Y., a federal aviation school for war veterans.

Also during these post-war days he pursued a sideline interest in the theater. He secured a small part as an officer returning from the War in Norma Talmadge's moving picture "Smilin' Through"; but, as parts became scarce he had to become a projectionist just to keep his hand in. He ended up at Proctor's Jersey Street Theater and when they changed from vaudville to stock he remained and merged into a character actor and doubled as a lighting expert for the Proctor Players Company. His flair for the dramatic no doubt accounted for his later popularity as a public speaker.

The Radio Boom

On the advent of radio broadcasting, C.L. Richardson joined forces with an old school chum, Marcus Whitehead for the manufacture of radio apparatus at Elizabeth, N.J., under the name Whitehead & Richardson. From about February 1922 tc the end of 1923 a prodigious quantity of custom and short production run radios were made. They developed a reputation for high quality products supplying John Wanamaker of Philadelphia, Marshall Field of Chicago and many other firms. Also some notable installations were made for the Union Club of New York, Mr. Reginald Vanderbilt and Maxim's restaurant, to name a few.

Perhaps sensing a greater freedom and opportunity, perhaps simply longing for his 'home' town he decided to pack up his operation in Elizabeth and return to Toronto in January of 1924. The radio boom which was well established in the U.S. was just starting to mount in Canada, so opportunity abounded. He set himself up as a Radio Engineer in an office and shop on Clinton St. and because of his relatively extensive wireless and radio experience obtained in the more seasoned U.S. climate he was in very high demand. His Radio Service Bureau offered a rather novel monthly inspection service as well as regular repair work. He designed and built production prototype receivers for Simpsons and Eatons Department Stores. He was sought after by various magazines of the day, such as, Radio News of Canada and Radio Sales, to write semi-technical articles; the latter appointed him Technical Editor. Of course with each introduction in the print medium there would be an impressive curriculum vitae. And so it was no small wonder that in September 1924 C.G.E. which was just launching its radio business offered C.L. Richardson the key position of Radio Engineer reporting to Oscar E. Forrest Manager of Engineering at the Ward Street Works. He was instrumental in setting up the Radio Engineering Department with attendent laboratory and was responsible for the design, manufacturing specifications and drawings of all Radiola receivers produced by C.G.E. He was also a member of th Design Committee at General Electric Co., Schnectady, N.Y. While C.G.E. made selected sets of American RCA design, the Canadian company did design and de-

velop several sets more suitable to the increased distances of the Canadian field and to the locally available parts and materials.

His department comprised three assistant radio engineers and three draftsmen; the radio manufacturing division employed some 470 workers during the peak months from June to December. Radio operations continued at C.G.E. until 1928 when RCA Victor, Montreal was set up to manufacture for Westinghouse, C.G.E. and themselves, along the line of the American RCA.

By Christmas of 1924 C.G.E. were producing Radiola III's and IIIA's from scratch using their own dies, moulds and tools. In the 1925-26 period they produced the following products on a similar home-made basis: Radiola Super VIII, Radiola Super-Heterodyne, Radiola 24,25, 28, 93, 193, 226, 205 and loudspeakers 100, 102, 104 and UZ1325. The Radiola 205 TRF receiver was particularly pleasing to C.L. Richardson as it was 100% C,G.E. designed and manufactured. It comprised one TRF stage followed by detector and three stages of audio amplification.

Of the many problems posed to the Radio Engineering Department, the following has become known as somewhat of a classic.

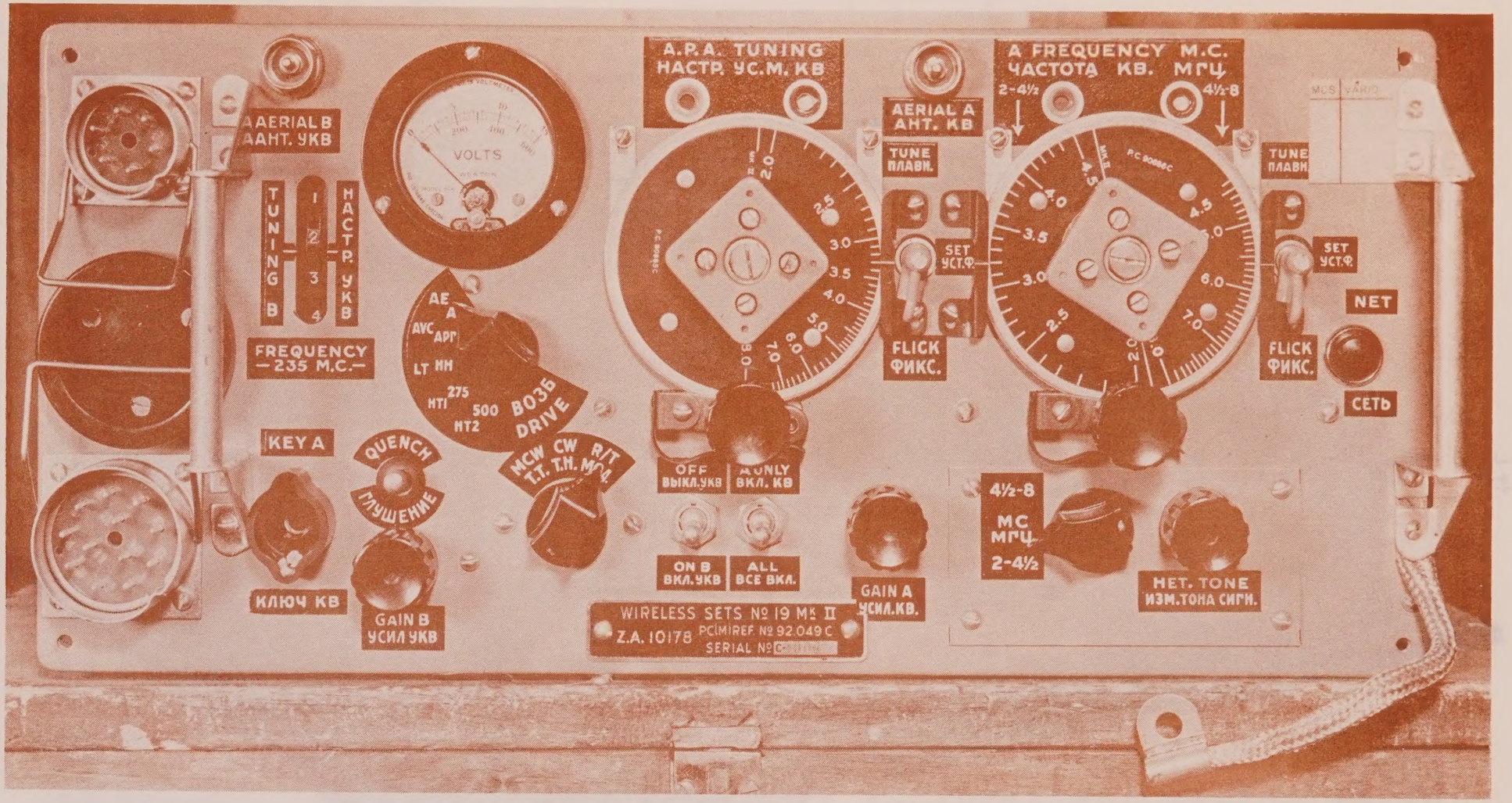
"Coils for a radio frequency amplifier were wound on a special winder and immediately dipped in a mixture containing ingredients having a certain dielectric constant. The purpose of this dip was to stiffen the coil for handling and to impregnate against moisture. After assembly into the amplifier unit a dielectric compensator was attached to represent a value when the whole coil system was immersed and solidified, after all adjustments had been performed. The compensator was on only during the period of adjustment and test, after which it was removed and the coil system immersed and sealed.

One day it was discovered that all amplifiers were being rejected after immersion and an immediate investigation was instituted. The shop processes were checked and then the test methods. Everything appeared O.K. in every way right up to the immersion of the coil system. A complete analysis of the immersion mixture as well as all material entering manufacturing disclosed nothing of a troublesome nature. The output of the department was at a standstill and the days lengthened into weeks and finally, three went by and no answer. The engineering staff worked day and night and constructed new amplifiers from the ground up which passed O.K. but shop production could not get by. Eventually, through patient watching C.L. Richardson, himself, discovered that one of the girl operators who wound and dipped coils had been using a pet mixture to dip the coils instead of the proper preparation from the main tank. She found that adding a dash of cleaning solvent reduced the tendency of the mixture to form lumps! She had dipped some 30,000 coils which were stocked two months previous and which the shop had only just run into. The coils were salvaged by redipping operations, but, think of the worry and the three weeks lost time."

"Eternal vigilance is the price of quality" - C.L. Richardson

On October 2nd 1925 an important step in the history of Canadian radio activity was taken when C.L. Richardson organized a Canadian Section of the IRE at a meeting held in the auditorium of the Ward Street Works. The list of those present was quite impressive. At the head table, along with C.L.R. were: Don McNicol, V.P. IRE; Cmdr. C.P. Edwards, Dept. of Marine and

C.G.E. Model 205
5-tube TRF



Wireless Set #19 Mk II
R.C.A. Victor & Northern Electric Co. Ltd. were manufacturers

Fisheries; E.S. Mallet, C.G.E, Works Manager, Ward St. Div.; Profs. W.H. Price, T.R. Rosebrugh, U.of T.; D. Carlos, past Pres., Toronto Section, AIEE. Other notables among the 53 present were: W.F. Choat, Westinghouse Canada Ltd. (present CVWA President); Chas. A Lowry, H.M. Kipp Co, (ref. Vol 7 No. 1 of this bulletin); H. lewis, Radio News of Canada; E. Swan, CKEY; A.M. Patience, and A. Oxley, RCA Victor Co., Montreal; G. Pipe, Rogers Majestic Co., Toronto.

In his address to the meeting C.L. Richardson pointed out that there were at that time some 60 Canadian members of the IRE and an estimated 250 engin eers actively engaged in radio design and construction in Canada as well as many who were connected with various government departments. He stated the object of the Canadian Section was to bring these men together in order that they may perform the same functions for the radio industry in Canada that has been performed in the United States by the American Institute, such as standardization of radio apparatus and the discussion of technical matters of interest to all. Also, the Canadian Section it was said would provide in winter months popular illustrated lectures on technical matters presenting them in simple language for the benefit of the general public. (Shades of Charles Gorden Richardson!)

After the Radio Boom

When University of Toronto heard that he was leaving C.G.E. in 1928 they offered him a professorial appointment, but he declined the honour in favour a more lucrative and independent career as an electronics consultant. Until the great stock market crash in 1929 he remained in the radio field associated with various firms such as Splitdorf Electrical Co. in Toronto. Then he turned to sound and film engineering and was associated with Dominion Film Labs, Film and Slide of Canada and later Screen & Sound Services Ltd. until about 1935 when he went completely independent. During the early '30's he set up automatic equipment for developing and printing 35 mm motion picture film, installed recording studios and worked on various aspects of sound equipment development and production. Between 1935 and 1940 he built many high quality custom sound installations for various companies and organizations including General Motors, Imperial Oil, Consumer's Gas and Conklin and Garrett Ltd. Fortunately he was also an accomplished photographer and has kept pictorial records of many of his productions.

In 1940 he was assigned as a training officer to the Canadian Corps of Signals at Vimy Barracks, Kingston Ontario. He was then attached to the Directorate of Communications and Fire Control under Brig. H.E. Tabor. He was concerned with the technical requirements of all communications equipment to be manufactured in Canada, including radar, and liaison with British and U.S. authorities. He spent an interesting stint in Kapuskasing, Ontario in January 1942 in charge of the first cold weather tests of Canadian and U.K. communications equipment for use on the Russian front. Among the gear tested was the famous No. 19 tank set which after the war became the workhorse of the Canadian amateur.

His next appointment was to the Inspection Board of U.K. & Can., the agency for the inspection,test and acceptance of all electrical and electronics equipment required by the Armed Forces during WWII. He set up the Ontario section of the Signals In-

spectorate with some 183 personnel deployed in the Bonded Stores at each contractor's plant. It was his duty to resolve any problems between the Contractor and Bond as well as to administer the organization and confer with Ottawa H.Q. on acceptance requirements. His high personal standards no doubt suited him well for this position and won the immediate respect of the various contractors. He was soon promoted to the rank of Major in 1945 and transferred to Ottawa to head the Signals Inspectorate, overseeing the Ontario and Quebec sections as well as the Ottawa H.Q. staff. The I.B.U.K.& Can. completed its function in 1947.

For a few years following he was a consultant in private industry, mainly associated with General Radionics Ltd; the first car radio sold by Canadian Tire Corp. was designed and developed under his guidance.

His seniority and rapport with the Canadian electronics industry together with his experience with the I.B.U.K& Can. led naturally to employment as Production Officer for the Electronics Branch of the Dept. of Defence Production in Toronto. It was his duty to inspect and assess production facilities of proposed government contractors, assist in solving technical and production problems arising during production and to confer with Inspection Services on problems arising with contractors. As one comes to expect with the endeavours of C.L.R., when the closing of the Toronto office was announced in 1955 he received letter after letter from the many firms with which he had dealt, expressing their regret and sincere appreciation of his kindly and valuable assistance with their problems.

In the years that followed he continued with some consulting work related to crystal manufacture and sound equipment, but gradually attended to more esthetic matters. He was a lodge man and organist and took up hobbies of hi-fi, photography and genealogy.

He also had a 25-year old Austin automobile, but, unlike a certain Stanley Steamer of years gone by, it was maintained to perfection. If he had occasion to drive the venerable Austin in the winter then on returning home, no matter what the time or the temperature, he would thoroughly wash down the outside in his driveway; he would then roll it into the safety of his garage where a thorough scrubbing of the underside would complete the ritual. For such was the nature of Charles Lepel Richardson.

(*The Captain draws a revolver from under his coat. He stands with mouth to side of line telephone while one eye watches Sears.*)

Sears (*sitting down*)—I'll learn all about these wireless sets yet.

Captain (*speaking into transmitter*)—Hello... (*pauses*)... What, highwaymen have robbed an autoist on Judah Street?... (*pauses*)... At 9:15 o'clock; they headed out Nineteenth Avenue? Give that number again... (*pauses*)... Thank you, we'll get them. (*The Captain puts receiver on hook and crosses over to wireless apparatus.*) Yes, Sears, we'll get them, your pals!

Sears (*lighting a cigar*)—Interesting evening I had with you, Captain. Guess I'll be going now. (*He rises and walks to corridor door.*) Good-bye till we meet again.

(*Exit Sears.*)

(*The Captain pushes a button on the table. He then adjusts the wireless telephone transmitter and thrusts switch to sending position. He takes up the wireless hand transmitter, while he looks expectantly at the corridor door.*)

Captain (*into wireless hand transmitter*)—Police Captain Brady speaking. All police automobiles be on watch for Dodge car license number 612122A. Stop them and arrest all in machine.

(*There are sounds of scuffling outside, in the corridor. It continues for a few seconds. Enter Sears, handcuffed, with two detectives, one on each arm.*)

Sears (*angrily*)—What is the meaning of all this? I have nothing to do with the auto-bandits. You have nothing on me. What is the charge?

Captain (*to detectives*)—Search him. I believe he stole a little red book from the top of the receiving cabinet.

(*Detectives search Sears and find code book in his inside coat pocket.*)

Captain—Do you know the charge now, Sears? One way or another I knew I would get you.

(CURTAIN.)

THE TRADING POST

a) Trading post ads are free to CVWA members; CVWA is not responsible for any transaction.
b) When writing please give full address incl. Postal Code or Zip.
c) Please write ads on separate sheet; keep ada short.
d) Ads must be for personal use only.
e) Please mail ads early; closing dates are 15th of Feb., May, Aug., and Nov.
f) Please send all ads to: Sid Prior (see p.1)

WANTED:
For Supreme Model 85 Tube Tester:
OWNERS MANUAL
CIRCUIT DIAGRAM
TUBE CHARTS or COPIES.
H.F.TAYLOR
1121 W 26th.Ave.
VANCOUVER BRITISH COLUMBIA
CANADA V6H2A6
##########################

WANTED:
6x6 tuning eye tube
Chassis mounting brackets for DeForest Crosley #850
For A.K.20:
Oval metal name tag.
Back plate for controls or comlete 3 3/4 dia.Brown bakelite,3 position Sw.Antenna
Good Audio Output Trans.
(More wanted next issue)
ROD GOODWIN
BOX 1854
PONOKA ALBERTA CAN TOC2HO
##########################

WANTED A HOME:
A Table model Marconi Model II0,in working order for someone in or around St. Catherines,for free. Herb. would like a collector who would appreciate it to get in touch with him?
HERBERT D.LINDSAY
703 378 VINE ST.
ST. CATHERINES ONTARIO
L.2.M.7.T.I.
##########

WANTED;
Chassis for a Philco 20A Bee Hive Radio.
FOR SALE:
A PFANSTIEHL Model 7 I924 Battery Radio $85.
BRIAN DARBY
I7 ORMOND CR.
SIMCOE ONTARIO N3YIY3
##########

WANTED:
Tubes and Schematic for a ROGERS Type 50 5 tube T.R.F.RCVR.
Made by Standard Radio MFG.Corp.Canada
Will pay for same.
JIM DE CRUYENAERE
212 200 BROOK PARK DR.S.W.
CALGARY,ALBERTA,CAN.
T2W3E5
##########

WANTED:
Information or book re Short Wave Coils for S.W. I 2 or 3 tube sets,also any info.on Sort wave sets Bob needs a 200 tube.
BOB SPARKS
7 FLORENCE CRES.
TORONTO ONT.CAN. M6N4E3.
##########

FOR SALE:
Two ATWATER KENT MODEL 20 Radios,in mint condition and comletely overhauld.
One has the original horn and the other has original phones.
A Battery eliminator for sale.
BILL TARLING
I40I BIRCHMOUNT RD.
SCARBOROUGH ONTARIO MIP2E2.
PHONE 759 0794
##########

WANTED:
VISUAL EYE TUBE fo a II55 A W.W.II Rcvr. either a VI03 Y6I or Y63. Has 8 small prong contacts.
A.H.G.LEMERY
27 WHARNCLIFFE RD. S.
LONDON ONT. CAN. N6J2J5
##########

WANTED:
The Circuit Service Data for R.C.A. VICTOR "LITTLE MASTER IV" same as Model 55I page I6I Vintage Radio Book.
DARCY BROWNRIGG
CHELSEA QUEBEC CAN. JOXINO
##########

WANTED:
MAIN Tuning Knob,and On & Off Knob (with course serrations) for Philco Model 70.
Main Tuning Dial I 5/8in. Dia. and On & off Knob I 3/8in.Dia. for A.K.Model 84 or 84F.
Brass escutcheon dial plate for Philco Model 20.
JIM ROSS
BOX II28
BEAMSVILLE ONT.CAN.LORIBO.
##########

LETS HELP EACH OTHER IN RGARDS TO THESE ADS.
ONE GOOD TURN DESERVES ANOTHER

CROSS-INDEX. U.S. RCA and CANADIAN RCA, CGE, and WESTINGHOUSE Receiver Model Numbers.

RCA (USA)	RCA (Cdn)	CGE	Cdn. W'nouse
R-7	R-7, R-78	S-22, S-22X	W-801
R-7A	R-7A,R-8A,R-9A R-104,R-105	H-77,S-42A	W-801
R-8	R-8	S-42	-
R-10	R-8,R-10,R-12 R-107	J-85	-
R-11	R-15	K-62	-
R-21,R-22	R-20,R-109	-	-
R-28	R-28	K-50	W-53
R-28P	R-29,R-31	K-52,K-53	-
R-37	R-37	K-60	-
R-43	R-30	S-42B	-
R-50,R-55	R-20,R-21	H-32	-
R-51B,R-53B	-	-	B-103
R-70,R-70N	R-48	J-72,J-76	-
R-71	R-50	J-82	W-82
R-71B	R6,R-67,R-68	JB-83,JB-87	B-83
R-72	R-52	J-86	-
R-73	R-53	-	-
R-74,R-76,R-77	R-54,R-56	J-105,J-107	-
R-78	R-22	J-125	W-122
R-90	90	K-106	W-103
R-90P	-	-	W-104
Radiola 16	-	-	W-16
Radiola 17	-	-	6AC 1927-28
Radiola 18	-	-	6AC 1928-29
Radiola 20	-	-	W-55
Radiola 42	-	-	W-61,W-71,W-81
Radiola 66	-	-	W-89
Radiola 80	R-35	H-31	W-101
Radiola 82	R-39	H-51	-
Radiola 86	RE-57	H-71	-
RAE-59	RAE-59	H-72	-
RE-18	RE-41	-	-
RO-23	RO-112	-	W-112
M-34	M-34	B-40	A-43
M-105	M-105	C-41	A-44
M-116	M-116	B-52	-
100,101	101	M-41,M-42	W-44
110,111,115	R-31	K-52,K-53	A-53
118	118	M-51,M-52	W-155,W-254
120	-	K-57	W-53
121,122	-	K-64,M-62	W-64,W-634
128	128	M-61	W-165A
135-B	135-B	M-7B	-
140	140	K-80,K-85	W-83AW
142B,241B	R-87	K-8B	-
143	143	M-81	W-84,W-185X

Compiled by Maurice Chaplin

Submitted by Bill Russell, Bulimba, Queensland, Australia

"Smooth to Moderate Elsewhere"

By "SPARKS"

[Note.—"Smooth to moderate elsewhere" is a term used at the conclusion of almost every wireless weather forecast transmitted from coast stations to vessels at sea. Whether these words are added for the purpose of consoling those who are experiencing uncomfortable weather conditions has not yet been determined. All we know is that the phrase is responsible for the excellent command the normal ships office has of the vernacular.]

THE brilliant sunshine of a Queensland summer had given way to a spell of grey skies and falling rain. The first tinge of winter had arrived and for three days, Brisbane shivered. City dwellers had not ceased to complain from the moment the rain had commenced to fall and in trains, trams, and buses, the sole topic of conversation was centred in the weather.

The third day was perhaps the most unpleasant for, as evening approached an icy south-easter sprang up, which forced the mercury several degrees lower. Myriads of lights, reflected from shop windows, danced playfully and saturated Queen-street, as thousands of business folk streamed from offices and shops, scampering 'neath the canopy of sheltering umbrellas to homeward bound trams and trains.

It was a night upon which one might well say, "It's good to be indoors"—a night when the comforts of home appeals irresistibly, and our thoughts go out to those, whose occupation draws them into exposure with such bitter weather.

drawer and lifted out a set of head-gear. Mechanically, he opened a log book and spread before him, a service radiogram, the only message waiting to be transmitted back through miles of howling waste to Brisbane. The ship rolled heavily and the operator cursed as his hand slipped from the small screw with which he was adjusting the sending key.

It was an uncomfortably small cabin in good weather conditions, but to-night, he had cause to be thankful for its smallness, and with both legs stretched in different directions, managed to jamb a camp stool tightly to the deck of the cabin and so, seat himself at the key. He donned the head-gear, adjusted the receiver and "listened-in" to the whole Pacific Ocean. The rumbling note of the big land station at Pinkenba came through loudly as the call from another steamer, bound from the north to Brisbane was answered. Radiograms followed in quick succession, the note of the northern steamer died suddenly, as her operator, nearing the end of his messages, pulled out a main switch, and a second later, Pinkenba had given the received call and was disengaged.

Whilst longshoremen chattered and read in the shelter of their homes, a group of oil-skinned seamen dragged tarpaulins across the deck of an ugly coaster lying in the river, whilst others placed battens in position, and hammered the chokes well home. A heavily-swarthed figure mounted the dirty little bridge. A few minutes elapsed and without any fuss, ropes were cast off and the coaster backed away from the wharf, swung in mid-stream, and turned her squat little nose towards the open bay.

Three hours later, she met the full force of the strong south-easterly gale. The sea was mountainous but the sturdy little vessel forged ahead bravely, tossing about like a toy. A big grey back, racing up from the south hit the coaster's bow with a sickening thud. It paused for an instant and leapt aboard, and swept along her decks. She shuddered and raised her dripping bows high into the air, lurching forward again like a drunken man. Volumes of cold green water raced along the decks, flattening out a ventilator. The figure at the helm cursed the sea and dodged behind a weather cloth as a shower of spray was flung with blinding force, high over the top of the bridge.

The night wore slowly on and the storm showed no signs of abating. Eight bells sounded and the helm changed hands. Bridge orders were repeated half mechanically, and the relieved man staggered down below to his bunk.

Suddenly, a light glowed in the wireless room, just aft of the funnel and a weary operator opened a

The operator's hand shot out and closed on a switch. A low growl, which swelled into a musical note sounded above the crash of seas outside, and as the operator pressed down his key in the Morse symbols, which spelled out a call from the coaster to the big land station, a crash of sparks from a rotary gap filled the wireless cabin. Brisbane Radio answered and soon afterwards the only message of the night had been shot through space.

The hands of the clock pointed a minute to nine. The operator tightened his head-gear and listened for the clear ringing note from the coastal radio station at Sydney. Just on nine o'clock, it burst through, the general call to all stations, followed by the invitation to "hear weather." "The 'old man' will want Sydney's weather report to-night," the operator thought," better not miss a word of it." He listened intently and in a high pitched tone, sent with a deliberate hand and somewhat slower than usual, the weather report came through. The operator's pencil moved swiftly—"Heavy south to south-east gales over the lower half of the Tasman Sea; gale conditions along the northern coast of New South Wales; heavy seas from Cape Byron to the south coast of New South Wales; SMOOTH TO MODERATE ELSEWHERE."

The operator smiled. "Smoth to moderate elsewhere"—fine consolation for the coaster's crew on such a night as this.

There was a heavy knock at the door of the cabin and the look-out man entered.

"The mate was asking if you had heard Sydney's weather report," he asked.

"Yes," drawled the operator—"Heavy seas and gales along the whole of the coast from Sydney to the north."

The look-out man turned to leave the room—the operator smiled— "Tell him that the report also says that it is "smooth to moderate elsewhere," he added.

The look-out man joined the operator in a grin and staggered out on deck.

Back on the bridge, he shouted into the ear of the mate in an endeavour to make himself heard above the roar of the wind and the crashing of seas.

"Bad weather and heavy seas from here, right on to Sydney," he yelled, "but Sparks says the weather is smooth to moderate elsewhere."

"Smooth to moderate elsewhere," echoed the mate, "that's a hell of a lot of use to us."

As the mate fought his way to the other corner of the bridge, and the operator bent forward over his table, thinking of home, and people 'way back ashore, supped coffee, yawned, and moved away from the firesides towards the comfort of their beds.

THE CAT'S WHISKER

BULLETIN OF THE CANADIAN VINTAGE WIRELESS ASSOCIATION

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